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(54) MANUSCRIPT LIGHTING DEVICE

(57)Abstract:

PURPOSE: To enable the multiple LED chips to be arrayed in a small pitch assuring the operational reliability for a long time by a method wherein a metallic core type wiring substrate is utilized for arraying the LED chips.

CONSTITUTION: The surface of a metallic core type wiring substrate 1 is coated with a resin film 2 to form the electrode patterns 3a, 3b. The multiple LED chips 4a, 4b connecting respective one electrode terminals to the pattern 3a are linearly arrayed on the film 2 while the other electrode terminals are connected to the pattern 3b through the intermediary of a lead wire. A cylindrical lens 6 opposing to the chips 4a, 4b is formed into one body with the lower surface of its base bonded and fixed on the substrate 1. The lens 6 focussing the light from the chips 4a, 4b irradiates a manuscript surface B as shown by the chain lines A. In such a constitution, since the substrate 1 is made of a metallic core body, heat radiation efficiency is improved.

